

On *Phyllium* species, known from the Key Islands. (Orthoptera: Phasmidae, Phylliinae)

with 5 figures.

by

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By studying a collection of Orthoptera from the Natuurhistorisch Museum in Rotterdam, I came upon some *Phyllium* species from the Isle of Toaal, one of the Key Islands. Two species were known to occur in these islands, viz. *Phyllium keyicum* Karny and *Phyllium insulanicum* Werner.

Both species are represented in this collection and from *insulanicum* there are two plesiotypes at hand. I take this opportunity to figure and redescribe these less known species. I wish to thank Dr. C. de Jong for drawing these instructive figures.

Phyllium Keyicum Karny 1914.

1914. *Phyllium keyicum* Karny, Jahresber. K. K. Maximil. Gymnasium Wien, p. 7, fig. 5, footnote.
1929. „ „ „ „ Günther, Mitt. Zoolog. Museum Berlin, Bd. 14, p. 614.

The description is made after 3 females, the male being still unknown.

♀: Head longer than broad, with some irregular rows of low tubercles on the occiput and along the hind margin, the hind margin with a larger one in the middle. Antennae short, about as long as the distance between the eyes, composed of 9 joints, fourth to seventh very short, strongly transverse, the apical one somewhat elongate.

Pronotum about as long as broad or slightly broader, anterior margin concave, posterior margin slightly convex; its disc granulose, with an impressed irregularly curved, transverse sulcus near the anterior margin and a median shallow impression in the middle; lateral margin slightly granulose and narrowing posteriorly, near the anterior margin with a rounded incision. Mesonotum broader than long, its disc granulose from above, more strongly along the anterior margin; lateral margin strongly narrowing posteriorly, with a row of small, irregular granules. Mesopleura widened posteriorly, its lateral margins finely denticulate.

Elytra reaching beyond the middle of abdomen, anterior margin broadly rounded, apex broadly rounded, posterior margin nearly straight; its greatest width about in the middle, the whole elytron

little more than twice longer than its greatest width. Vena subcostalis distinct, simple, reaching the anterior margin in the basal third. Vena radialis strongly developed in the basal half, before the middle bent towards the anterior margin, reaching this margin in

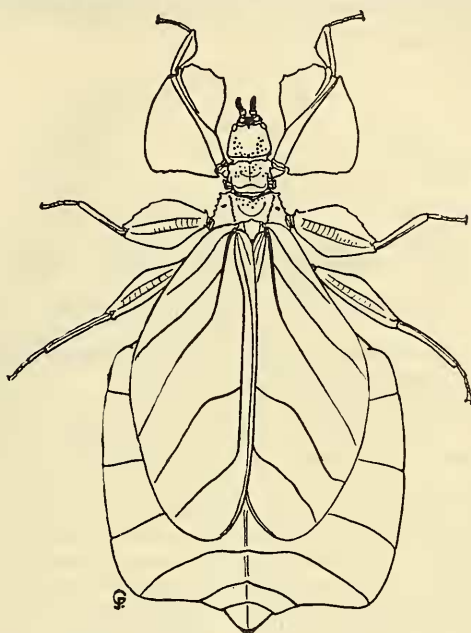


Fig. 1. *Phyllium keyicum* Karny ♀. Natural size.

the beginning of the apical third. There are one or two distinct branches arising in the basal half of the vena radialis, and reaching the anterior margin. Vena discoidalis low in the basal third, more strongly developed in the middle; in the basal third slightly bent, from thence straight, parallel to the posterior margin, with one or two branches arising in the apical half and both reaching the anterior margin, the vena discoidalis itself indistinct near the apex or bent towards the anterior margin, reaching this margin near the apex. Vena ulnaris simple, arising at the base, not connected with the V. discoidalis, running parallel and at a short distance with the posterior margin and terminating into the apex. There is a distinct interspace between the V. discoidalis and the V. ulnaris. Vena analis simple, short, straight, connected at its apex with the V. ulnaris. Wings obliterated. Abdomen broad, with a median elevated keel from base to apex, reaching far beyond the elytra, lateral margin straight, nearly parallel; the 8th. tergite much smaller than the 7th., forming a rounded angle with the 7th. tergite, its lateral

margin straight, directed about perpendicularly on the median line of the body, by which position the form of the abdomen looks as to be truncated; the remaining tergites (9th and 10th) forming a triangular lobe, with the apex rounded. Cerci depressed, spatulate, broader at its apical third, apex surpassing a little the apex of the 10th, tergite, obtusely rounded.

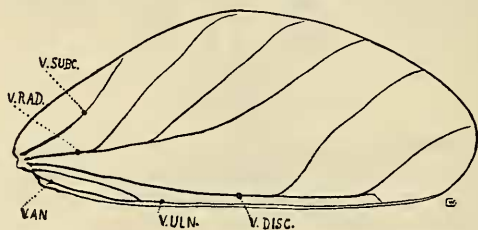


Fig. 2. *Phyllium keyicum* Karny. Right elytron ♀.

Pro- meso- and metasternum granulose, prosternum with a somewhat larger tubercle in the middle of the disc.

Anterior femora lobate on both sides, the anterior lobe only developed in the apical half, triangularly rounded, its margin with 3—4 small spines; posterior lobe reaching from the base to the apex, triangularly, broadly rounded, much larger than the anterior one, its margin nearly entire or with only a few small, blunt teeth. Anterior tibia with only a small, triangularly rounded lobe on the inner side, margin subsmooth. Median femora lobate on both sides, the lobes reaching from the base to the apex, anterior lobe a little broader than the posterior one, its margin rounded, with some small teeth, the posterior lobe with the margin smooth. Posterior femora only lobate on the inner margin, narrow, triangularly rounded, its margin with some small teeth.

Median and posterior tibiae normal, without lobes.

General coloration (from dried material) greenish brown, elytra with some darker coloured spots.

	♀	
Length of body	77 — 79	mm
Width of head	6,5 — 7	"
Length of pronotum	5 — 6,5	"
Length of mesonotum	3 — 3,5	"
Length of elytra	45 — 46	"
Width of elytra	18,5 — 20	"
Length of anterior femora	16 — 17	"
Length of median femora	13 — 13,5	"
Length of posterior femora	15 — 16,5	"
Width of abdomen	41 — 47	"

Patria: Isl. Toeal (Key Isl) 3 ♀ ♀, (coll. Natuurhist. Museum Rotterdam); Key Isl. (coll. Karny). Fig 1 and 2.

The systematic position of this species is near *Ph. celebicum* de

Haan (fig. 3), from which it differs in the shape of the abdomen, being in *celebicum* much narrower and more gradually narrowing posteriorly, in the shape of the 8th tergite, being in *celebicum* much smaller, its lateral margin narrowing posteriorly and in the presence of a short, though distinct, wing in *celebicum*.

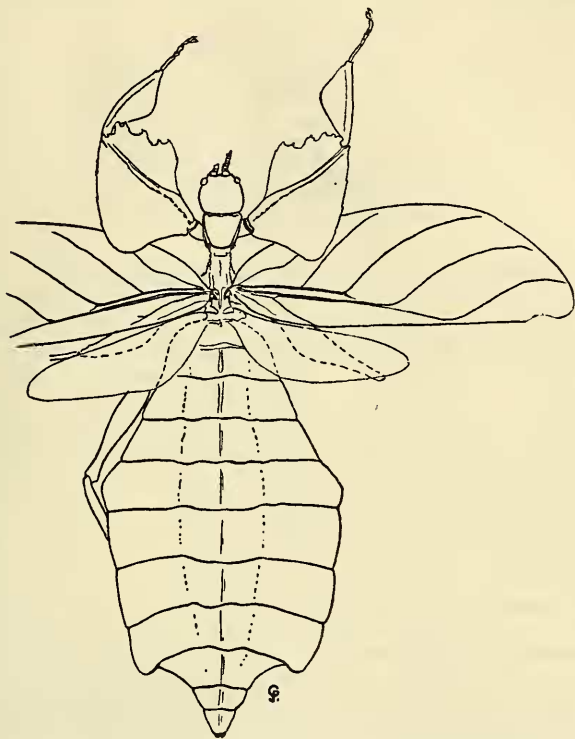


Fig. 3. *Phyllium celebicum* de Haan ♀ type. 9/10 Natural size. Celebes, Tondano (Forsten).

***Phyllium insulanicum* Werner 1922.**

1922. *Phyllium insulanicum* Werner, Zoolog. Meded. Leiden, VII, p. 126.

1929. *Phyllium indicum* (err. scrib.!) Günther, Mitt. Zoolog. Mus. Berlin, Bd. 14, p. 614.

Description after two plesiotypes, the male still unknown.

♀ : Head somewhat longer than broad, from above with some irregular rows of low tubercles, the hind margin in the middle with a larger one. Antennae short, about as long as the distance between the eyes, composed of 9 joints, fourth to seventh very short, strong-

ly transverse, the apical one somewhat elongate. Pronotum slightly broader than long, anterior margin concave, posterior margin slightly convex; its disc granulose, with transverse and median impressions as in *keyicum*, lateral margin narrowing posteriorly, near the anterior angle with a few, small teeth or granules, and with a rounded incision.

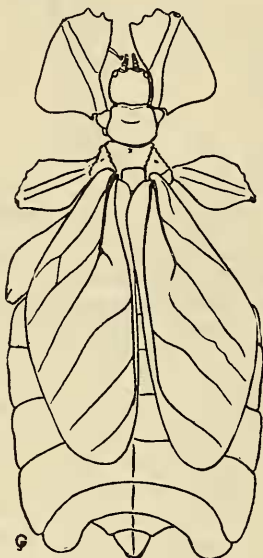


Fig. 4. *Phyllium insulanicum* Werner ♀ type. Natural size. Toal Isl.

Mesonotum broader than long, its disc granulose, more strongly near the anterior margin; lateral margin strongly narrowing posteriorly, with a row of small, irregular granules. Mesopleura widened posteriorly, its lateral margins dentate. Elytra reaching beyond the middle of abdomen, anterior margin broadly rounded, apex rounded, posterior margin nearly straight; its greatest width about in the middle; the whole elytron about two and a fifth times longer than its greatest width. Vena subcostalis distinct, simple, reaching the anterior margin in the basal third. Vena radialis strongly developed in the basal half, a little before the middle, slightly bent towards the anterior margin and reaching the margin about the beginning of the apical third. There is only one distinct branch, which is bifurcated in its apical part, and arises from the principal vein in the basal third. Vena discoidalis low near the base, in the middle to nearly the apex strongly developed; in the basal third slightly curved, from thence straight, parallel to the posterior margin; behind the middle of elytra there is a branch running into the anterior margin, the vena discoidalis itself is in the apical third

divided into two branches, the anterior one also running into the anterior margin, the posterior one parallel to the posterior margin, but somewhat nearer than the principal vein and terminating into the apex.

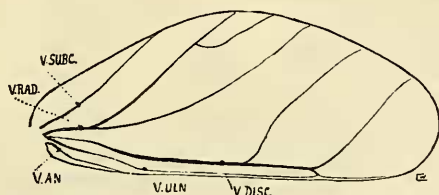


Fig. 5. *Phyllium insulanicum* Werner. Right elytron ♀.

Vena ulnaris simple, arising at the base, not connected with the vena discoidalis, following at a very short distance the posterior margin, terminating into the apical bifurcation of the vena discoidalis. Vena ulnaris and discoidalis distinctly separated by a narrow interspace. Vena analis simple, short, connected at its apex with the vena ulnaris. Wings obliterated.

Abdomen broad, with a median elevated keel from base to apex, reaching far beyond the elytra, lateral margin nearly straight, subparallel; lateral margin of the 8th tergite rounded, posterior margin deeply, bowl-like curved inwards, forming in this way on both sides a rounded lobe; these lobes not surpassing the apex of abdomen or only slightly. The 9th tergite normal, the 10th tergite triangular, with rounded sides, apex rounded. Cerci depressed, spatulate, broader at their apical third, apex surpassing a little the apex of the 10th. tergite, apex obtusely rounded.

Pro- meso- and metasternum granulose, prosternum with an indication of a discoidal tubercle.

Anterior femora lobate with the anterior lobe only developed in the apical half, triangular, its anterior margin with about 3 small, irregular spines; the posterior lobe reaching from base to apex, triangular, much larger than the anterior one, both margins irregular, posterior angle more or less rounded truncate.

Anterior tibiae with a small, triangular and rounded lobe on the inner side. Median femora lobate on both sides, the lobes reaching from base to apex, anterior lobe more or less rounded triangular, its anterior margin and part of the lateral margin with some small spines; posterior lobe smaller, rounded triangular, its margin sub-smooth. Posterior femora only lobate on the inner margin; the lobe not quite triangular, but more or less truncate at its broadest place, posterior part of its margin with some small spines. Median and posterior tibiae normal, without lobes.

General coloration (from dried specimen) greenish brown, elytra with some lighter coloured spots.

	♀	
Length of body	75	mm
Width of head	7	"
Length of pronotum	6	"
Length of mesonotum	3,5	"
Length of elytra	41	"
Width of elytra	16	"
Length of anterior femora	15	"
Length of median femora	13	"
Length of posterior femora	16	"
Width of abdomen	38	"

Patria : Isl. Toeal, Key Islands, J. H. Jurriaanse, 1920. Two plesiotypes, (coll. Natuurhist. Museum Rotterdam). Fig. 4 and 5.

The systematic position of this species is near *Ph. frondosum* Redtenbacher. *Phyllium frondosum* is unknown to me but after *Werner insulanicum* differs in having the lobe of the anterior tibia broader, the posterior lobe of the anterior femora triangular with the apex rounded, the posterior margin of this lobe less emarginate and the lobes of the 8th. tergite not surpassing the apex of the abdomen.